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## THE SELECTIVE PRINCIPLE IN AMERICAN SECONDARY EDUCATION. I

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Throughout history the selective principle has dominated secondary education. At no time and in no place has there been any serious effort to extend to all classes the privileges of an education that goes beyond the period of childhood. Whether of birth or of talent, the bar has always been raised.

It is true that in the development of secondary education in our own country a theoretical departure from this principle has been made or at least attempted. Our succession of secondary schools has certainly witnessed a tendency toward democratization. As we have passed from the Latin grammar school through the academy to the free public high school, the curriculum has been broadened, and the number of students in attendance has increased. This is particularly true of the high school which, for half a century, has been expanding in a manner quite without precedent in the history of educational institutions. From 1890 to 1918, while the total population was increasing from 62,622,250 to approximately 105,253,000, the number of young people enrolled in the public high school increased from 202,963 to 1,645,171.

This remarkable development has caused some to jump to the conclusion that we have abandoned the selective principle in practice—that in the United States the public high school is patronized by all classes without distinction. Thus, in a statement issued by the teachers of the Washington Irving High School for Girls in New York City in 1911, we find these words: “A public high school differs from an elementary school chiefly in the age of its children.” Such a statement assumes a practical abandonment of the selective principle and marks a new era in the history of secondary education.

It is evident, however, after a moment's reflection, that this view completely disregards the facts. At the present time there

are probably not more than 2,000,000 students enrolled in those four years of our educational organization which constitute the conventional secondary school. Yet there are approximately 8,300,000 children of high-school age in the nation. This means that only about 25 per cent of the children of high-school age are in high school, in spite of the unprecedented growth of secondary education in recent years.

For the purpose of discovering the sources from which the high-school population is drawn and the extent to which secondary education in the United States is still selective in character, the writer during the past two years has been engaged in a rather careful study of the high-school populations in four cities—Bridgeport, Connecticut; Mount Vernon, New York; St. Louis, Missouri; and Seattle, Washington. It is the object of this and subsequent articles to present the more important findings of this investigation.

#### METHOD OF THE INVESTIGATION

In attacking this problem it was decided to take a relatively complete census of the high-school population in each of several typical American cities. Obviously, returns from a single high school drawing its students from a single quarter of one of our large cities would not be satisfactory because of the well-known tendency of populations of similar social and economic standing to gravitate to the same section of the city. It was thought desirable to study a community sufficiently complex to present all the more important groups (except the agricultural) found in modern society, and sufficiently large to provide representation of each of the groups adequate for statistical purposes. For these reasons, an entire city was studied in each case.

With a few exceptions, a uniform procedure was followed throughout in getting the data. All students in attendance on a certain day were required to fill out a card on which were questions asking for various educational and sociological information, the character of which will become clear in the course of this presentation. In order to avoid confusion, a set of instructions, along with a card filled out for a hypothetical case, was sent to each teacher in charge of a home room, by whom the cards were to be distributed

to the students. In most cases the name of the student was not asked for. While a detailed statement and criticism of the method are not possible here, it should be said that, in the main, the cards were filled out with care and that there is no reason for believing that there was sufficient bias to prejudice the results of the study.

#### CHARACTER OF THE CITIES STUDIED

A few words should be said about the character of the cities in which the study was made. While they were chosen not altogether because of their representative character, but rather because it was possible to secure the necessary data from them, they may be regarded as fairly representative of the country. Geographically they are widely distributed, although it is admitted that the real South, the Great Lakes region, and the plains states are not adequately represented.

According to the federal census for 1920, Bridgeport has a population of 143,555; Mount Vernon, 42,726; St. Louis, 772,897; and Seattle, 315,312. All but St. Louis have been growing very rapidly in recent decades. This old middle-western city was a great urban center of more than 300,000 inhabitants in 1870 and therefore exhibits a stability in many ways not characteristic of the more rapidly growing cities.

The people in these four cities include all the racial and cultural elements to be found in urban America. Seattle is one of the least foreign of our large cities with almost 50 per cent of its people classed as "native white of native parentage." Bridgeport, on the other hand, is one of our most foreign cities with almost three-fourths of its inhabitants of foreign and mixed parentage. If we examine the immigrant stocks represented, the greatest diversity is found. In Seattle the immigrants are mostly of the "old" immigration from the north and west of Europe, with the Scandinavians predominating; in St. Louis both the "old" and the "new" immigration are well represented; while in the two eastern cities the "new" predominates with an exceptionally large representation of Italians in Mount Vernon and of Austro-Hungarians in Bridgeport. It should also be noted that the Chinese and Japanese have a large contingent in Seattle, and the negroes are well represented in St. Louis.

Occupationally, the cities also exhibit considerable diversity. Bridgeport is one of our most highly industrialized cities with over 60 per cent of its workers engaged in the manufacturing and mechanical industries, while Seattle is at the other extreme, with less than one-third of its workers so engaged, and may be regarded as a great commercial and trade center. St. Louis shows less specialization and is a center for both trade and industry. Mount Vernon differs from the other three in being in large measure a residential community for people working in New York City.

In wealth the four cities represent the mean rather than the extremes. According to the report of the federal census for 1919 on the estimated true value of property per capita in American cities, these cities in every case approximate very closely the average for cities of their class. With the exception of St. Louis, they are slightly above this average. All are apparently cities of moderate wealth.

The proportion of children of high-school age who are attending high school is another matter that deserves attention. In this respect the cities show important differences. Basing our calculations on the report of the Bureau of Education for 1918 and estimates of the number of children of high-school age in the general population for the same year, we find that 20.4 per cent of the children of high-school age in the entire country were in high school. St. Louis and Bridgeport made a record somewhat below this with percentages of 17.8 and 18.7 respectively—while for Seattle and Mount Vernon these percentages are 28.8 and 31.9. The Seattle record is particularly exceptional for a city of more than 300,000 inhabitants.

#### CLASSIFICATION OF OCCUPATIONS

Occupation is the central fact in the life of the ordinary person. It determines in considerable degree his place of residence, his friends and acquaintances, what he does and what he thinks, his social and economic status, and his outlook on life. The occupation of the father of the high-school student has therefore received very large emphasis in this investigation. Four or five questions, depending on the city, were asked each student concerning the occupation

of his father. From the returns to these questions it was possible to get a relatively reliable and accurate idea of the father's occupation, even though he was not living or not working at the time this census was taken. In a few cases information was given for the guardian instead of the father, but the facts for the latter were used wherever available.

The first task encountered as soon as the tabulation of the data commenced was a classification of occupations significant for the purposes of this study. Since no existing classification was satisfactory, after some experimentation the following system was evolved, recognizing sixteen occupational divisions:

1. *Proprietors*—Bankers, druggists, hotel-owners, landlords, laundry-owners, lumbermen, manufacturers, merchants, mine-owners, publishers, shopkeepers, etc.

2. *Professional service*—Architects, artists, clergymen, dentists, engineers, lawyers, pharmacists, physicians, surgeons, teachers, etc.

3. *Managerial service*—Contractors, foremen, managers, officials and inspectors (private and public), superintendents, etc.

4. *Commercial service*—Agents (real estate and insurance), buyers, clerks in stores, commercial travelers, salesmen, etc.

5. *Clerical service*—Accountants, bookkeepers, canvassers, cashiers, clerks (except in stores), collectors, etc.

6. *Agricultural service*—Dairymen, farmers, gardeners, ranchmen, etc.

7. *Artisan-proprietors*—All artisans who own the shops in which they work, including bakers, barbers, blacksmiths, cleaners and dyers, cobblers, machinists, milliners, plumbers, printers, tailors, tinnern, etc.

8. *Building and related trades*—Carpenters, electricians, lathers, masons, plasterers, plumbers, etc.

9. *Machine and related trades*—Blacksmiths, draftsmen, engineers (stationary), founders, machinists, molders, pattern-makers, tool-makers, etc.

10. *Printing trades*—Bookbinders, compositors, electrotypers, engravers, linotypers, pressmen, typesetters, etc.

11. *Miscellaneous trades in manufacturing and mechanical industries*—Bakers, brewers, cobblers, cigar-makers, cutlers, dyers,

glass-blowers, milliners, platers, tailors, tanners, weavers, etc., and machine operatives.

12. *Transportation service*—Baggagemen, brakemen, chauffeurs, conductors, engineers (locomotive and marine), longshoremen, motormen, sailors, switchmen, etc.

13. *Public service*—Detectives, firemen (fire department), guards, policemen, sailors, soldiers, watchmen, etc.

14. *Personal service*—Barbers, cooks, janitors, launderers, porters, sextons, waiters, etc.

15. *Miners, lumber-workers, and fishermen.*

16. *Common labor*—Including all apprentices and helpers.

TABLE I

THE OCCUPATIONS, BY NUMBER AND PERCENTAGE, OF THE FATHERS OR GUARDIANS OF 17,265 STUDENTS IN ALL FOUR YEARS OF THE HIGH SCHOOLS OF BRIDGEPORT, MOUNT VERNON, ST. LOUIS, AND SEATTLE\*

	Number	Percentage
Proprietors.....	3,427	19.8
Professional service.....	1,629	9.4
Managerial service.....	2,846	16.5
Commercial service.....	1,637	9.5
Clerical service.....	996	5.8
Agricultural service.....	416	2.4
Artisan-proprietors.....	723	4.2
Building trades.....	1,325	7.7
Machine trades.....	1,227	7.1
Printing trades.....	186	1.1
Miscellaneous trades.....	654	3.8
Transportation service.....	846	4.9
Public service.....	270	1.6
Personal service.....	238	1.4
Miners, lumber-workers, and fishermen.....	66	0.4
Common labor.....	213	1.2
Occupation unknown.....	566	3.2
Total.....	17,265	100.0

\* Data secured at various times during school years 1919-20 and 1920-21.

#### PARENTAL OCCUPATION AND THE HIGH-SCHOOL POPULATION

On the basis of the foregoing classification of occupations, the students in all four years of the high schools in these four cities were

classified according to the occupation of the father or guardian. The gross results of this tabulation are presented in Table I in which appear the number and percentage of students from each occupational group. It will be observed that of the 17,265 cases studied, 3,427, or 19.8 per cent, were classed as proprietors, 1,629, or 9.4 per cent, as professional workers, etc. There was a small number of students in each high school who did not give sufficient data to make an occupational classification possible. These were all placed in a seventeenth category labeled "occupation unknown," and constitute but 3.2 per cent of the total.

An examination of the table shows that there are very wide differences in the representation of the various groups in the high school. Some of them, such as the miners, lumber-workers, and fishermen, the printing trades, common labor, personal service, and public service, are practically without representation. On the other hand, as has already been noted, the fathers of almost one-fifth of these high-school students are engaged as proprietors. Following the proprietors are three other non-labor groups arranged in the following order: managerial service, commercial service, and professional service. Only two of the labor groups may be said to be fairly well represented, the building and machine trades.

But this table by itself is of little significance, for it throws practically no light on the question we have raised regarding the selective principle in secondary education. Do these percentages indicate selection or not? Assuming no selection, should the printing trades, common labor, personal service, and public service constitute a larger or smaller proportion of the total high-school enrolment? This is a question we are unable to answer without knowing something about the representation of these different occupations in the general population.

#### COMPARISON WITH THE ADULT POPULATION

In getting occupational data for the populations of these four cities it was necessary to rely on the federal census for 1910, since the last census is not yet available. Here we find all persons over ten years of age gainfully employed classified according to occupation. But it would obviously be fallacious to make a comparison



between the number of high-school students whose fathers are engaged in a particular occupation and the number of persons over ten years of age in the general population engaged in that occupation because of the well-known fact that certain occupations, such as clerical service, are recruited very largely from youthful workers. Such occupations will be represented by a comparatively small proportion of men old enough to be fathers of high-school students. Since it has been found that the median age of such fathers is around forty-eight years, it was decided to base the comparison altogether on the number of men over forty-five years of age engaged in each occupation in the four cities. This was found to be possible by a series of simple calculations, starting with the classification of workers according to age in certain occupations. The writer would have preferred taking forty instead of forty-five years as the lower age limit, since there is a large number of fathers of high-school students between these two ages, but the census data did not permit it.

Let us turn now to Figure 1 in which this comparison is made. Here we find for each occupational group the number of children in high school for each 1,000 males over forty-five years of age. Thus for each 1,000 men over forty-five years of age engaged in managerial service in the four cities in 1910, there were 400 students in high school, when this investigation was made, whose fathers or guardians were engaged in this group of occupations. The very wide range of representation is at once apparent. At the upper extreme is the managerial service, just referred to, with a record of 400, while at the lower extreme is common labor with a record of but 17. The order of the various occupational groups is of interest. We have already noted the extremes. Following the managerial service are three great non-labor groups—professional service, proprietors, and commercial service. Then come the printing trades, which have a low absolute representation in the high-school population as shown in Table I, because of the small number of persons engaged in these trades in any ordinary city population. The proportional representation of this group is the highest of all the labor groups and slightly higher than one of the non-labor groups, clerical service. This record is probably to

be explained in terms of the superior educational qualifications required in the printing trades, the associations commonly formed in the occupation, and the stability of employment. Public service also is well represented, probably because of the somewhat careful selection of the workers, the nature of the work, and the stability of employment. At the other end of the series are the lower and

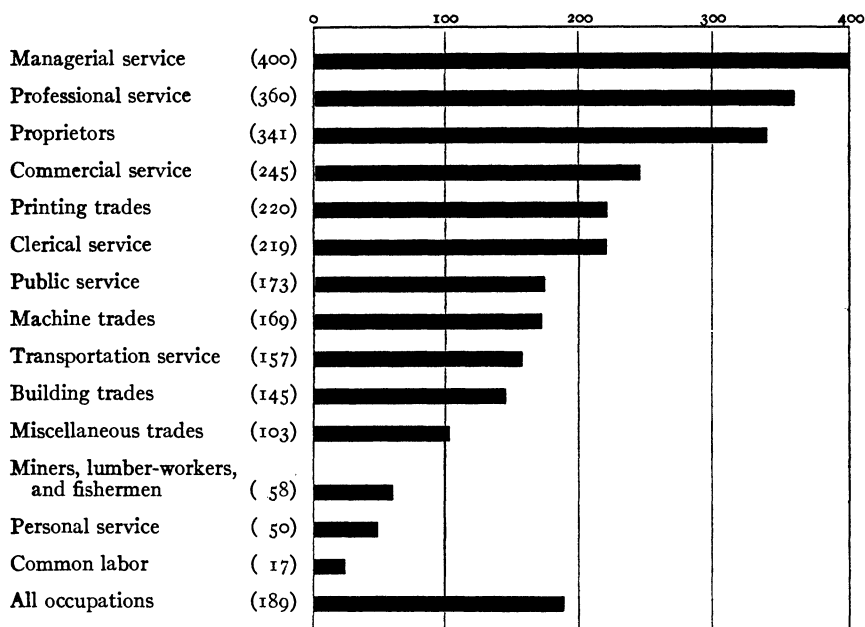


FIG. 1.—The number of children in the high schools of four cities (Bridgeport, Mount Vernon, St. Louis, Seattle) from each occupational group for each 1,000 males over forty-five years of age engaged in that occupation, according to the federal census for 1910. Data from 16,283 high-school students.

less respectable forms of labor, such as common labor, personal service, miners, lumber-workers and fishermen, and the miscellaneous trades. It should be recalled that this last group includes machine operatives and many semi-skilled workers.

The reader has perhaps observed that two of the occupational divisions recognized in the classification are not included in this figure, viz., the agricultural service and the artisan-proprietors. The reason for the exclusion of the first of these groups is obvious.

There is no natural relation between the number of children in the high schools of a particular city whose fathers are engaged in agricultural service and the number of adults so engaged living in that city, because many of the students in this group are either not living at home or are commuting from outside the city. This group is extraneous to urban life. The exclusion of the artisan-proprietors was necessary because they are not given distinct recognition in the federal census. There they are classed either as proprietors or as artisans, depending on the preponderance of function in each case. Consequently in this study they were allotted to the appropriate divisions.

Some criticism may be made of the order in which the occupations occur in Figure 1. In the light of other findings of this investigation that cannot be presented in this article, managerial service certainly should not be at the top, but rather should be in fourth place. This group occupies first place here probably because of certain difficulties encountered in translating the occupational classification of the census into the classification used here. In the census, managers are not always separated from proprietors, with the consequence that the number of managers in the returns is reduced somewhat below their actual number in the population. It also seems probable that some persons occupying managerial positions in the field of commerce are returned in the census as commercial workers. With this single shift, the order should stand about as it is, except perhaps that the clerical service should be above the printing trades.

It is probable, for two reasons, that the proportion of children in high school from the laboring groups is somewhat smaller than this figure suggests. In the first place, the acceptance of the number of men over forty-five in each occupation as the basis for comparison gives a certain advantage to those occupations in which the proportion of such men is relatively small, because over 30 per cent of the fathers of high-school students are under forty-five. As a consequence, the occupations engaging few men beyond this age are not given a representation in the general population proportionate to the actual number of fathers of high-school students to be found in them. Since, on the average, the laboring classes are recruited less

from the older men than are the other groups, it is apparent that the procedure followed here favors them. Among the non-labor groups it is true that the clerical and commercial workers are likewise favored. In the second place, the average number of children per family among the manual laborers is somewhat larger than it is among the other classes of the population. This is especially true of the lower grades of labor. Therefore, if the children from these elements in the population were enrolled in the high school in proportionate numbers, their ratio to the number of adults of the parental age in the same population groups should be larger than that for children from other classes with a lower birth rate. Both of these considerations should incline us, therefore, toward a revision of Figure 1 in the direction of larger rather than smaller differences between the two extremes.

In conclusion, it may be said that, in the light of this investigation of the entire high-school populations in four cities, public secondary education in the United States has not by any means abandoned the selective principle in practice. The public high school is patronized very largely by the more fortunate social and economic classes, and the lower grades of labor have as yet hardly begun to think in terms of secondary education. It remains in subsequent articles to observe the progress of these different groups through the school and the social composition of certain groups of children of high-school age not attending high school.

*[To be continued]*